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Deena Vann/DC/USEPA/US
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OPPT-8012
To JanetR Pope/DC/USEPA/US
cc
bcc 06 MAR 23 AM 8:38
Subject Fw: Environmental Defense comments on
2,4-Dichlorophenol, Sodium Salt (CAS # 3757-76-4)



"Hartwell, Gail"
<ggarvin@dow.com>
03/22/2006 03:54 PM

"Richard Denison" <rdenison@environmentaldefense.org>,
To NCIC OPPT@EPA, ChemRTK HPV@EPA, Rtk
Chem@EPA, NCIC HPV@EPA, Karen
Boswell/DC/USEPA/US@EPA
cc Skip Matthews <mtc@mchsi.com>, Karen Florini
<KFlorini@environmentaldefense.org>
Subject RE: Environmental Defense comments on
2,4-Dichlorophenol, Sodium Salt (CAS # 3757-76-4)

Richard,
I think that there might be some confusion here.

2,4-Dichlorophenol, Sodium Salt (CAS # 3757-76-4) and 2,4-Dichlorophenoxyacetic acid (also known as 2,4-D) (CAS # 94-75-7) are two different chemicals. The chemical submitted to the EPA's High Production Volume (HPV) Chemical Challenge is 2,4-Dichlorophenol, Sodium Salt (CAS # 3757-76-4), an manufacturing intermediate, not the commercial product 2,4-Dichlorophenoxyacetic acid (also known as 2,4-D) (CAS # 94-75-7).

This information should clear up the initial questions and comments made by Environmental Defensive below.

Please feel free to contact me if you have additional concerns.

Regards,

Gail M. Hartwell
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-----Original Message-----

From: Richard Denison [mailto:rdenison@environmentaldefense.org]

Sent: Friday, March 17, 2006 10:29 AM

To: oppt.ncic@epa.gov; hpv.chemrtk@epa.gov; chem.rtk@epa.gov; NCIC_HP@EPA.GOV; boswell.karen@epa.gov; Hartwell, Gail

Cc: Skip Matthews; Karen Florini; Richard Denison

Subject: Environmental Defense comments on 2,4-Dichlorophenol, Sodium Salt (CAS # 3757-76-4)

(Submitted via Internet 3/17/06 to oppt.ncic@epa.gov, hpv.chemrtk@epa.gov, boswell.karen@epa.gov, chem.rtk@epa.gov, MTC@mchsi.com, and ggarvin@dow.com)

Environmental Defense appreciates this opportunity to submit comments on the robust summary/test plan for **2,4-Dichlorophenol, Sodium Salt (CAS # 3757-76-4)**.

The Dow Chemical Company, in response to EPA's High Production Volume (HPV) Chemical Challenge, has submitted robust summaries and a test plan for the broad leaf herbicide, 2,4-dichlorophenol, sodium salt.

2, 4-dichlorophenol is a broad leaf herbicide used widely in agriculture, on residential and municipal lawns as well as on golf courses and public parks. As such, it is produced and released into the environment in amounts of tens, if not hundreds, of millions of pounds annually. Millions of workers and consumers are exposed, directly and indirectly, to 2, 4-dichlorophenol every year.

Consequently, this chemical has been the subject of extensive studies to determine all facets of its toxicity to humans, wildlife and the environment. Many of these studies have been published in the open literature. A brief internet search for 2, 4-D resulted in thousands of hits. However, in spite of the extensive environmental and human exposure to 2, 4-D, and the wealth of data addressing every SIDS element requested under EPA's HPV Challenge, the present submission is largely uninformative.

Considering the wealth of data available and the fact that virtually all studies indicate that 2, 4-D poses low risk, it is a mystery why The Dow Chemical Company would submit such a poor summary of available studies to address the SIDS elements requested under the HPV Challenge. The following is a list of some of the more obvious deficiencies in this submission.

1. Though 2, 4-D is well-known, this submission describes it only in general terms as a pesticide, and does not point out that it is a broad leaf herbicide or how it is used.

2. According to EPA guidelines, a test plan should present a concise summary of the available information addressing the required SIDS elements and identify additional work that needs to be done. This test plan misses that goal completely; it is poorly organized and, in some cases, does little more than recite EPA guidelines for SIDS elements, providing no information other than to refer the reader to the robust summaries.
3. With thousands of references available, it is surprising to see that the robust summaries are so brief and uninformative. They are poorly organized, contain a number of pages that list only headings with none of the supporting data provided, and hence do not fully address the required SIDS elements. The best and most informative section of the robust summaries appears to be a photocopy of a SIDS Initial Assessment Profile addressing 2, 4-D.
4. The SIDS Initial Assessment Profile states that photodegradation should be an important means of removing 2, 4-D from the environment and provides an estimated half-life; however, neither the test plan nor the robust summaries provide the actual data and referenced studies to address this SIDS element.
5. The test plan frequently refers the reader to the robust summaries; however, the data provided there are, at best, sketchy and for the most part unreferenced. Of the thousands of published references describing 2, 4-D, the robust summary references only two.
6. A list of synonyms is a required SIDS element for any chemical addressed under the HPV Challenge. The most commonly used synonym for 2, 4-dichlorophenol and the name by which it is best known by the public is 2, 4-D. No list of synonyms is included in the present submission and the abbreviation 2, 4-D is not consistently used, which means that searches using this most common synonym might well miss the HPV files.
7. The robust summaries, under the heading "toxicity to plants," fail to describe the toxicity of this chemical to aquatic plants. Given that this chemical is an herbicide and there is a wealth of information on its toxicity to plants, this is a huge omission.
8. Given that millions of pounds of 2, 4-D are released into the environment every year, and that considerable work has been done to characterize its toxicity to wildlife species, it is also a mystery why the robust summaries provide no information regarding the toxicity of 2, 4-D to terrestrial wildlife species. Sponsors have an obligation under their sponsorship commitment to summarize all available hazard-related information, including for endpoints beyond the SIDS.

We appreciate that 2, 4-D is produced and marketed in a number of different forms (salts and esters) in order to modulate its volatility and solubility and to best tailor it to its various uses. The sponsor of this chemical is correct to point out that since the salts readily disassociate and the esters readily hydrolyze to yield 2, 4-D, the various forms are essentially equivalent in the environment and/or on exposure to living organisms. Thus, results of studies of one form can be readily extrapolated to predict the behavior or toxicity of other forms. Given this, and the existence of thousands of studies addressing all facets of the chemistry, environmental fate and toxicity of 2, 4-D, it is inexcusable that this submission is so poorly written and provides so little data to address the required SIDS elements. We find it completely unacceptable and strongly recommend that EPA find it inadequate to address the HPV Challenge for this chemical.

Thank you for this opportunity to comment.

Hazel B. Matthews, Ph.D.
Consulting Toxicologist, Environmental Defense

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Senior Scientist, Environmental Defense